

REPEATED STRUCTURE OF NANOMETER THIN FILMS WITH  
SYMMETRIC OR ASYMMETRIC CONFIGURATION FOR SPR  
SIGNAL MODULATION

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ABSTRACT

A symmetric or asymmetric multilayer structure based on the technique of surface plasmon resonance (SPR) has been applied for modulation of resonant angle and wavelength. The fabrication of this invention can have  
10 nanoscale thin film layers up to several hundreds, while each layer has its own material of a high or low refractive index value, and the total layers in a thickness of tens to hundreds nanometers are grown in this single structure. This invention is intended for optimizing the scanning of mechanism by modulating SPR resonant angle and wavelength, and for  
15 developing the prospect of portable instruments.